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THE ALL-IMPORTANT TOPLINE

BUILDING A BETTER BACK

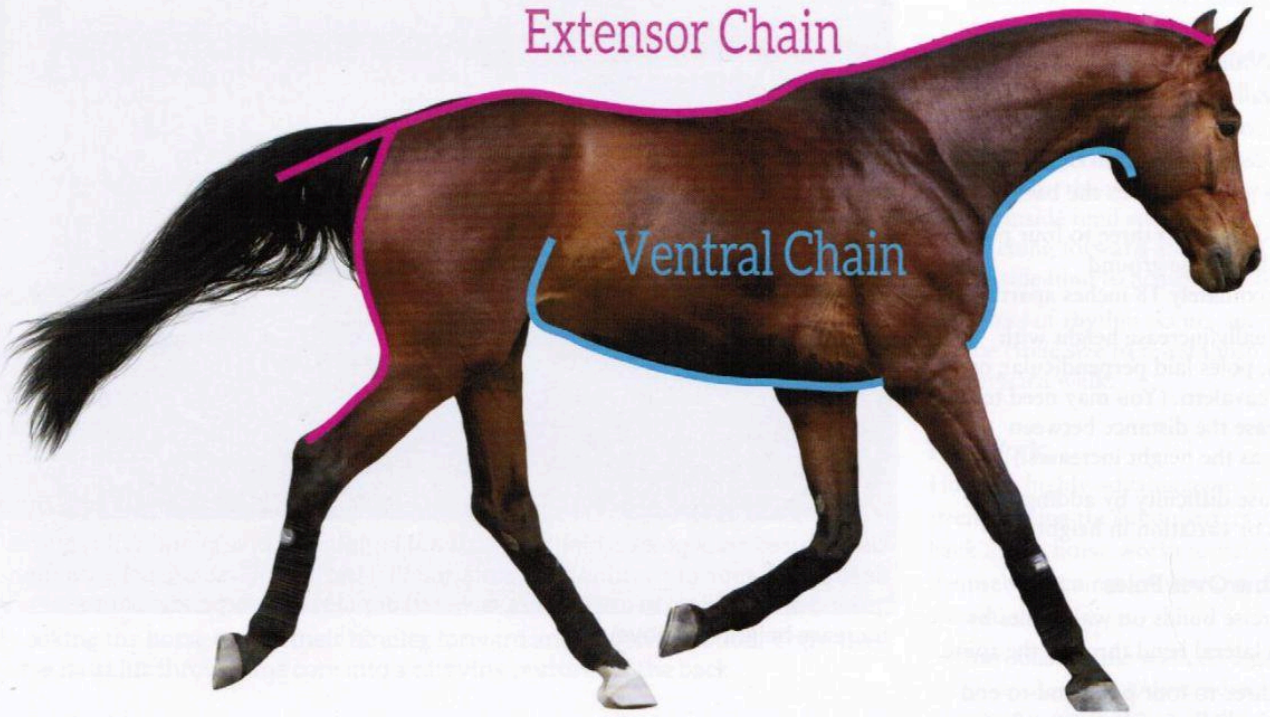
BY SHERI SPENCER, CEMT PTS

A horse's "topline" refers to the muscle structure and overall appearance of the outline formed from the tail over the croup and back, and up to the withers, and often includes the upper line of the neck to the poll. These muscles support posture and movement and, consequently, the horse's ability to carry a rider.

A healthy topline is free of tension and can engage, relax and stretch easily for harmonious, pain-free movement. By visual evaluation, it's characterized by smooth, well-toned muscles that create gently curving lines over the horse's back. This can be a good indicator of healthy movement patterns and strength. It's easy to be fooled, however, by fat. Those well-rounded, gentle curves with a cresty neck may be a fatty topline. Assessing the body condition score and checking for fat over the loins, shoulders and tail head can help determine if it's more likely fat or muscle.

Distinct lines or creases along the edges of muscles may highlight areas of tension and concavities can indicate weakness, atrophy or muscle damage. If there are weak or under-developed muscles in the topline, it can indicate musculoskeletal pain or dysfunction or issues with saddle fit, nutrition, conditioning or training. Poor saddle fit is the most common reason for atrophy in the topline – in the longissimus dorsi (main back muscle) and trapezius

THE TOPLINE IN MOTION



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Extensor and ventral chains of muscles (and ligaments) work together in synchronized opposition to control and coordinate movement.

muscles (attach shoulder blades to spine). So, alongside nutrition, saddle fit should be assessed at the beginning of any rehabilitative or training program, otherwise efforts will be for naught.

Topline in Movement

Several muscles and ligaments contribute to the topline as part of the extensor chain, named as such because they extend the hip and spine, hollow the back and raise the head. This chain is largely responsible for forward propulsion, while simultaneously acting as a critical support to stabilize the spine while transferring the power and thrust generated by the hindquarters.

This system would be unstable, however, without the support of the flexor chain which lies underneath the spine in front of the hip and includes the abdominal muscles. The flexor muscles play an essential role in stabilizing correct back posture (such as resisting the "hollowing" to fully support the back) and are important for all movements requiring collection.

The extensor and flexor chains work together in synchronized opposition to control and coordinate movement – when extensor muscles contract, the flexors relax, and vice versa.

This relationship is an example of biotensegrity (biology + tension + integrity) where the musculoskeletal system functions as an integrated, dynamic network, maintaining stability and efficiency in movement and distributing forces throughout the body. Similarly, if there is pain or tension anywhere, a cascade of compensatory issues can snowball throughout the body. Thus, treating any pain is necessary when beginning rehabilitation.

Exercises to Develop a Strong Topline

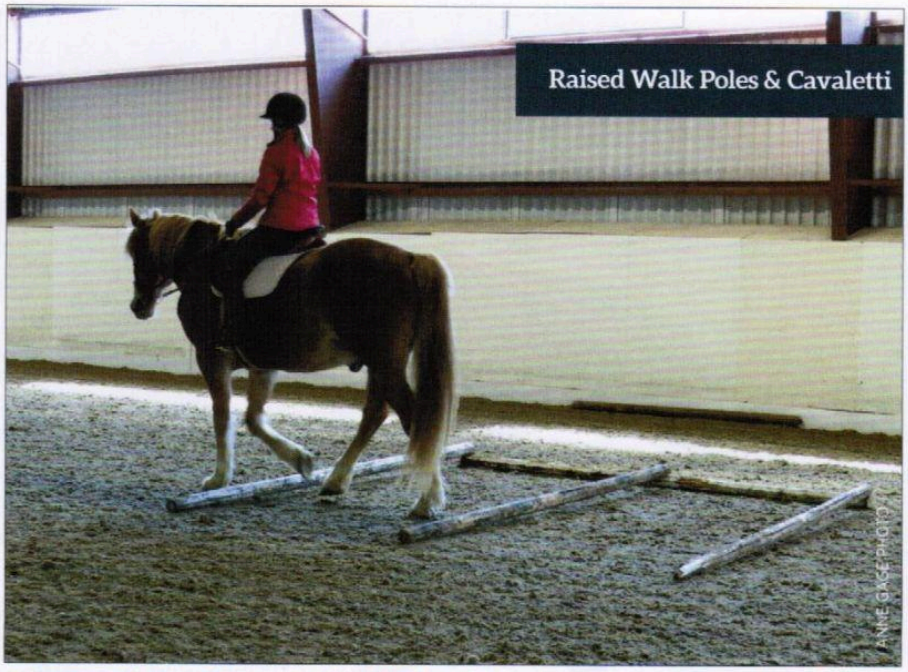
Developing topline requires activating the horse's core, engaging and lifting their spine and using their hindquarters effectively. The following exercises can be performed in hand or under saddle depending on your horse's fitness level. Beginning in hand is encouraged so that you can better monitor that the horse is using themselves correctly before progressing.

Observe your horse before and after training sessions for changes in posture and adjust intensity and duration if you note sensitivity or behavioural shifts that indicate muscle soreness or fatigue.

Raised Walk Poles & Cavaletti

Raised walk poles is one of the most effective core-building exercises that requires deep articulation of the hindlimb joints and lifts the back.

- Introduce up to three to four poles parallel on the ground approximately 18 inches apart.
- Gradually increase height with risers, poles laid perpendicular, or with cavaletti. (You may need to decrease the distance between poles as the height increases.)
- Increase difficulty by adding more poles or variation in height.



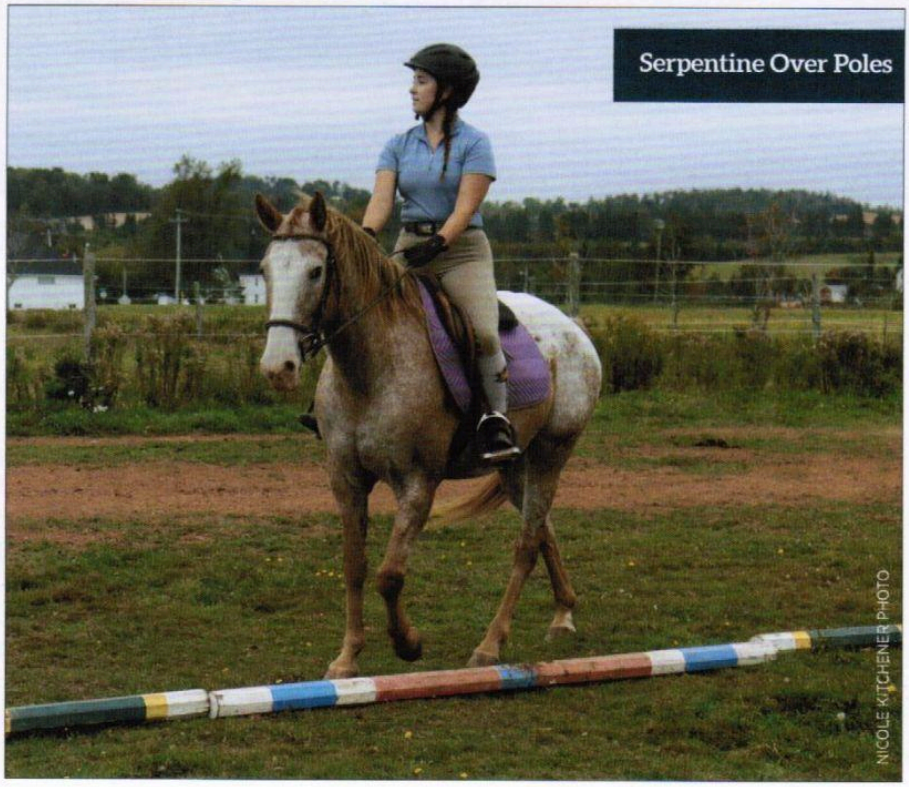
Using raised walk poles is highly effective at building a horse's core, as it requires deep articulation of the hindlimb joints and lifts the back. First, use poles on the ground and build up to using risers, cavaletti or poles laid perpendicular to increase height (as above).

Serpentine Over Poles

This exercise builds on walk poles by adding a lateral bend through the spine.

- Lay three to four poles end-to-end in a single line with plenty of space all around.
- Approach the end of the line on one side, then ask the horse to step over in a serpentine pattern, keeping the feet as close to parallel with the poles as possible. The horse should be crossing the line each time at a slight angle, not straight. Once done, then bring the horse back over the other way, and so on.
- The horse may take additional steps between crossovers in the beginning, or drift further from the line. Gradually lessen these distances as the horse is able.
- Once the horse can do this comfortably, you can increase difficulty by raising the poles with risers.

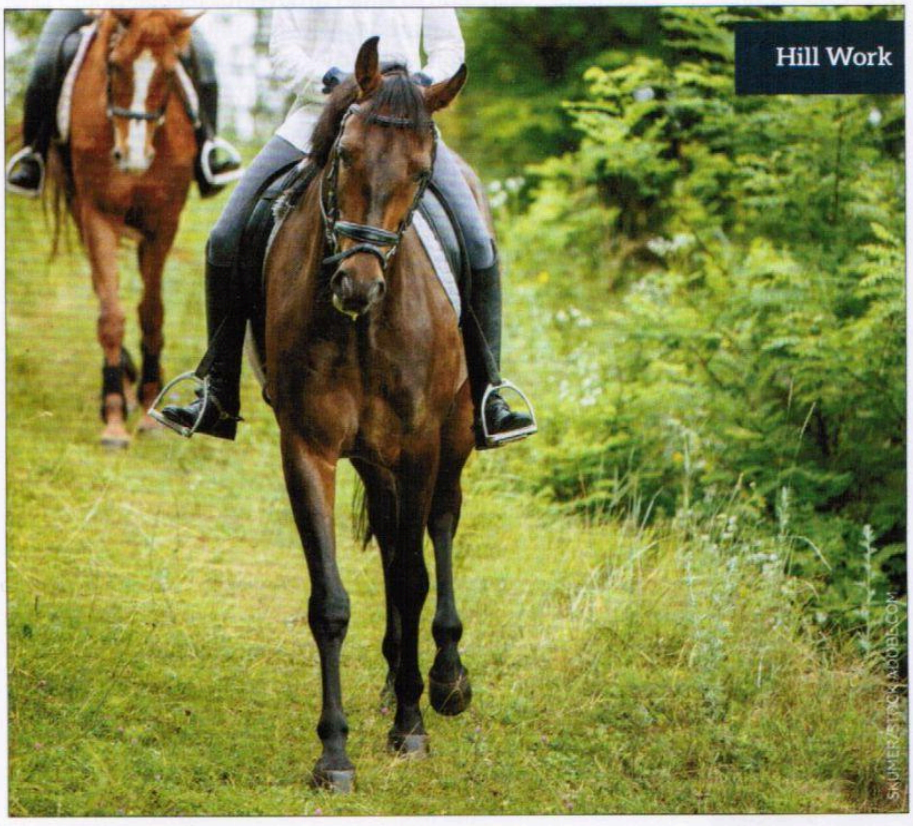
Below: Build on the walk pole exercise by asking the horse to step over a line of poles in a serpentine pattern, keeping the feet as close to the poles as possible.



Stepping Under

Encouraging the hind legs to step under and across can be a great introduction to lateral movements. In this exercise, by stepping their hindleg forward and underneath the body, the horse must lift

By asking the horse to step their hindleg forward and underneath their body, the horse must lift through the core into a carrying posture for the back.



Hill work strengthens the hindquarters and back as the horse balances against gravity and changing terrain.

through the core into a carrying posture for the back.

- At the walk, begin by putting your horse on a small circle, approximately 10 metres in diameter, encouraging a neutral or forward and low head carriage with a gentle bend through the spine around you.
- Shrink the circle just enough to maintain the walk rhythm while the inside hind steps underneath, reaching forward and across the outside hind to achieve the turn.
- If loss of rhythm occurs, increase the circle size to re-establish a forward walk.

Hill Work

Hills are highly advantageous for strengthening the hindquarters and back as the horse works to balance themselves against gravity and changing terrain.

- Introduce at the walk on a gentle slope. Ascending/descending on an angle is often easiest in the beginning, then work up to straight up and down.
- Increase difficulty by lunging or circling on a gentle slope or in a shallow ditch.
- Work up to serpentines and figure-eights on a hillside or through a shallow ditch, giving the horse time to adjust their balance through changes of terrain and direction.

Focus on quality over quantity, being mindful for signs of fatigue. Pushing for too much too soon can lead to less-desirable movement patterns when the desired muscle groups get tired and sore. Performing the exercises correctly is the priority, and over time the horse's topline and core will strengthen, improving their carrying power. CHA